

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

Ex parte MUHAMMED MAJEED and VLADIMIR BADMAEY

JUN 19 2003

Appeal No. 2002-0454
Application No. 09/083,122

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
& INTERFERENCES

ON BRIEF

Before WINTERS, SCHEINER and MILLS, Administrative Patent Judges.

MILLS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the examiner's final rejection of claims 1-2, 5, 6, 16 and 17¹, which are all of the claims pending in this application.

Claim 1 is illustrative of the claims on appeal and reads as follows:

1. A process for the production of potassium hydroxy citric acid, which potassium hydroxy citric acid is not in the form of a lactone, comprising the steps of:

¹ We note appellants' proffered amendment (Paper No. 18) cancelling claims 7-15. The examiner indicated both on Paper No. 18 and in the Answer, page 2, that the amendment had been entered. However, upon review of the record, we find the amendment has not been physically entered. For purposes of this appeal we treat the amendment cancelling claims 7-15 as entered, and upon return of the application file to the examiner, clerical entry of the amendment is required.

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- a) providing Garcinia fruit;
- b) extracting the Garcinia fruit with an alkyl alcohol to obtain an extract;
- c) repeating step b) to obtain another extract;
- d) combining the extracts of steps b) and c) to obtain a combined extract;
- e) treating the combined extract with potassium hydroxide to obtain a treated extract;
- f) refluxing the treated extract to obtain potassium hydroxy citrate precipitate;
- g) isolating the precipitate;
- h) washing the precipitate with an alkyl alcohol to obtain a washed precipitate; and thereafter drying the washed precipitate to obtain dried potassium hydroxy citric acid.

The prior art references relied upon by the examiner are:

Lewis 5,776,477 July 1998

Lowenstein, Jay, ed., Methods in Enzymology, Vol. XIII, "Citric Acid Cycle", Academic Press, New York, pp. 612-617 (1969)

Grounds of Rejection

Claims 1-2, 5-6 and 16-17 stand rejected under 35 U.S.C. 103(a) for obviousness over Lewis in view of Lowenstein.

We reverse this rejection.

DISCUSSION

In reaching our decision in this appeal, we have given consideration to the appellants' specification and claims, to the applied references, and to the respective positions articulated by the appellants and the examiner.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the noted rejections, we make reference to the examiner's Answer for the examiner's reasoning in support of the rejection, and to the appellants'

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Brief (Paper No. 27) for the appellants' arguments thereagainst. As a consequence of our review, we make the determinations which follow.

35 U.S.C. § 103

Claims 1-2, 5-6 and 16-17 stand rejected under 35 U.S.C. 103(a) for obviousness over Lewis in view of Lowenstein.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). It is well-established that the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

It is the examiner's position that (Answer, page 3):

"Lewis discloses the preparation of the hygroscopic potassium salts of hydroxycitric acid in which the dried fruit rinds of *Garcinia cambogia* are cooked in water to be extracted with ethanol, after its filtration, 40% KOH is added to the acidic filtrate to neutralize the mixture, subsequently the oily liquid is washed repeatedly with ethanol, and finally the yellow semisolid is obtained from drying out the oily liquid in vacuo at 80°C."

The examiner acknowledges that Lewis does not teach the process involved in combining extracts at pH10, refluxing the treated extract to obtain potassium hydroxy citrate, milling, sifting, blending, and packing the dried potassium hydroxycitric acid under nitrogen. Id.

The examiner relies on Lowenstein for its disclosure of a method of obtaining hydroxycitric acid from the Garcinia acid lactone by base hydrolysis with potassium hydroxide with heating followed by acidification. Lowenstein, column 1, lines 35-39; Answer, page 4. The examiner argues the heating step is the equivalent of a refluxing step.

"With respect to [the steps of] combining extracts at pH 10, refluxing the treated extract to obtain potassium hydroxy citrate", the examiner concludes "it would have been quite obvious for one having an ordinary skill in the art to extract the dried fruit rinds of Garcinia cambogia three times with ethanol to increase the quantity of the extracted material; furthermore, Lowenstein, the editor of Lewis' work, teaches that the hydroxy citric acid ... may be obtained from Garcinia by base hydrolysis, e.g. potassium hydroxide with heating followed by acidification, which means that it would have been obvious for the one with an ordinary skill in the art to have used Lowenstein's process without acidification in order to produce the non-hygroscopic potassium salts of hydroxycitric acid." Id.

In response, appellants argue that the claimed process "requires the refluxing of the alcohol treated extract with KOH to obtain a precipitate of potassium hydroxycitric acid and that the Lewis process contains no such requirement." Brief, page 9. Applicant contends that there is "no motivation to modify the Lewis process in a manner to duplicate the claimed process." *Id.* Appellants further argue that the "burden is on the examiner to prove that the element of the reflux is contained within the Lewis process. Applicants submit that this has not been done as no evidence has been presented which proves that an exothermic reaction is the equivalent of the refluxing temperature." Brief, pages 9-10.

We agree with the appellants that the examiner has failed to provide sufficient evidence to support a prima facie case of obviousness, in failing to provide evidence of a refluxing step, or evidence that an exothermic reaction is the equivalent of a refluxing temperature. Appellants argue that the term "reflux" is a term of art which has required a specific meaning in the art. Brief, page 10.² We agree.

Therefore, we reverse the rejection of the examiner as the examiner has failed to provide sufficient evidence of the refluxing step in the method of claim 1. While appellants put forth several additional arguments supporting patentability of the present

² The Brief, page 10, provides a definition of the term "reflux". The term is defined as, "used in distillation with a fractionating column for the liquid condensed from the rising vapor and allowed to flow down the column toward the still." The Condensed Chemical Dictionary, Seventh Ed., p. 812. In addition, Grant and Hackh's Chemical Dictionary defines the term reflux to mean, "A vertical or inclined condenser, from which the condensed liquid flows back into the distilling vessel."

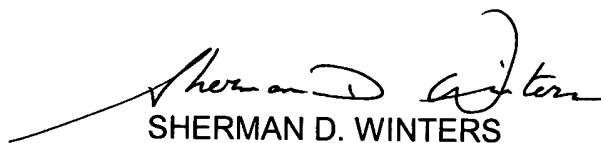
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invention and the failure of the cited references to disclose other claim limitations, we find the failure of the examiner to present sufficient evidence of a refluxing step to be dispositive, and do not reach the other claim limitations argued by appellants.

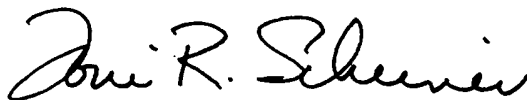
The rejection of the pending claims over Lewis in view of Lowenstein is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED


SHERMAN D. WINTERS

Administrative Patent Judge


TONI R. SCHEINER

Administrative Patent Judge


DEMETRA J. MILLS

Administrative Patent Judge

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